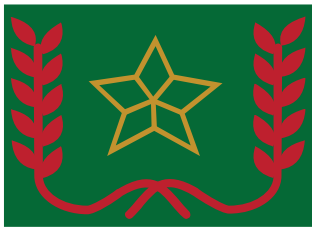


astronomer

Name: _____



| Requirements | Passed |
|--|--------|
| 1. Explain the difference between a star and a planet. | |
| 2. Name the planets in order from nearest to furthest from our sun, giving approximate distances. Explain their relative motions and define the ecliptic. | |
| 3. Know the speed of light and explain how this enables man to specify inter-stellar distances. Know the distance of the nearest star (in light years) to the sun and state the time taken for light from the sun to get to Earth. | |
| 4. Explain the phases of the moon and demonstrate, in sunlight, with the use of cardboard discs or balls made to represent the earth and moon (in proportion) how an eclipse of the earth and sun occurs. | |
| 5. Point out, on a cloudless night, at least six prominent constellations and demonstrate from at least two of these how to get an approximate bearing of north. | |
| 6. Understand inter-galactical distances. Point out the locations of two galaxies remote from the Milky Way and give their names. | |
| 7. Explain the concept of the south celestial pole and how to find it using the Southern Cross and pointers. | |
| 8. Demonstrate how to use a star chart by finding and pointing out six prominent stars. OR Demonstrate how to orientate around the sky using Astronomy software or other on-line resources | |
| 9. Explain how the positions of the stars at given times (as shown in star tables) can enable one's locality on the surface of the earth to be identified. | |
| 10. Know the meaning of universal standard time (LTC) and its relationship to the local standard time and local sun time. | |

2009
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Badge Awarded

